

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM
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R017 Great Basin Collared Lizard *Crotaphytus bicinctores*
Family: Crotaphytidae Order: Squamata Class: Reptilia

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

The Great Basin collared lizard is widely distributed throughout the arid and semiarid regions of the Mojave, Sonoran, and Southeastern Great Basin deserts. It is generally restricted to areas with rocky substrates, slopes, gullies, washes, canyons, and sometimes rock piles, although occasionally can be found up to a mile from extensive rocky habitat (McGuire 1996). It is most common in desert succulent shrub, desert scrub, and desert wash habitats. The Great Basin collared lizard is active in the spring and summer and to a lesser extent in the early fall. Southern populations are active earlier than northern populations, and remain active later in the year. It probably exhibits considerable variation in habits over its range (Johnson et al. 1948, Stebbins 1985, Fitch 1956, Legler and Fitch 1957, Yedlin and Ferguson 1973, Sanborn and Loomis 1979).

SPECIFIC HABITAT REQUIREMENTS

Feeding: The diet of this species consists largely of arthropods and small vertebrates (Stebbins 1985, McGuire 1996). Arthropods include orthopterans, coleopterans, hemipterans, hymenopterans, lepidopterans, and arachnids. Vertebrates include *Uta*, *Sceloporus*, *Cnemidophorus*, *Phrynosoma*, and *Xantusia*. Plant material is also occasionally consumed.

Cover: This species prefers rocky areas and seeks cover under rocks and in cracks and crevices and rodent holes (Stebbins 1985), occasionally bounding bipedally from stone to stone when disturbed (McGuire 1996).

Reproduction: The Great Basin collared lizard lays eggs and presumably constructs its own nest but there are no reports. The closely related *C. collaris* nests in rocky areas (Yedlin and Ferguson 1973) and sometimes lays eggs in tunnels under rocks (Fitch 1956). Friable, well drained soil is probably required for nesting.

Water: No information on water requirements. Probably does not require water, as it occurs in arid habitats.

Pattern: The Great Basin collared lizard occupies slopes, rock outcrops, gullies, washes and other areas with small vertical perches. It often sits on rock perches and watches for prey, predators, or perhaps conspecifics.

SPECIES LIFE HISTORY

Activity Patterns: This species is diurnal, active all day when temperatures are moderate or warm, and showing a bimodal or morning activity when temperatures are high (Stebbins 1985). It hibernates in winter, and may aestivate. It may become active as early as 17 April

in the north (McGuire 1996).

Seasonal Movements/Migration: This lizard is not known to migrate..

Home Range: Nothing is known about the size of home ranges of the Great Basin collared lizard. There are no reports of abundance but it is often possible to see as many as 5 individuals in 1 ha (2.5 ac).

Territory: This lizard is aggressive; adult males behave aggressively toward each other but will tolerate subordinate males (Stebbins 1985).

Reproduction: Courtship occurs in early spring. Eggs are laid in June and July; neonates have been observed in eastern Oregon in August (Brooking 1934). In Utah, females reached reproductive maturity at 85 mm SVL (Andre and MacMahon 1980). Mean clutch size was 5.4, and ranged from 3 to seven. Larger females produced larger clutches. Occasionally 2 clutches are laid (Johnson et al. 1948, Stebbins 1985).

Niche: Great Basin collared lizards are probably eaten by *Masticophis*, avian predators, and perhaps mammalian predators. The young are taken by loggerhead shrikes.

General Comments: This species has been subject to taxonomic confusion for several decades. McGuire (1996) revised the taxonomy of the *Crotaphytidae* based on morphological and genetic data, elevating *C. bicinctores* to specific status, separate from *C. vestigium* of the Peninsular range of southern California and *C. collaris* that occurs further east.

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